

Date: Friday, 8/31/2007 11:53:32 AM
 User: Kim Johnston

Process Sheet

Customer	: CU-DAR001 Dart Helicopters Services	Drawing Name	: DOUBLER
Job Number	: 34376		
Estimate Number	: 11469		
P.O. Number	: <u>N/A</u>	Part Number	: D314098
This Issue	: 8/31/2007	S.O. No.	: <u>N/A</u>
Prsht Rev.	: <u>NO</u>	Drawing Number	: D3140 REV F
First Issue	: <u>N/A</u>	Project Number	: <u>N/A</u>
Previous Run	: 27347	Drawing Revision	: <u>F</u>
		Material	: <u>N/A</u>
		Due Date	: 9/4/2007
Written By	: <u>[Signature]</u>	Qty:	6 Um: Each
Checked & Approved By	: <u>[Signature]</u>		
Comment	Est. A 02.04.30 New Issue NG Est. Rev B New dwg rev. ecn781 06.04.18 EC Est Rev:C Now on Waterjet 06-06-08 JLM Est. rev.D added scuffing NCR 061 EC Est Rev:B As per ECN #829 06-11-20 JLM		

Additional Product

Job Number:



Seq. #:	Machine Or Operation:	Description :
---------	-----------------------	---------------

1.0	M2024T3S032	2024-T3 .032 sheet
-----	-------------	--------------------



Comment: Qty.: 0.1796 sf(s)/Unit Total : 1.0773 sf(s)
 2024-T3 .032 sheet
 Matl: 2024-T3 (QQ-A-250/4) .032" thick
 (M2024T3S.032) Batch M100 384 1B 07-09-02

2.0	WATER JET	FLOW WATER JET
-----	-----------	----------------



Comment: FLOW WATER JET
 1-Cut as per Dwg D3140
 Ensure grain direction is correct***
 Dwg Rev: [Signature]
 Prog Rev: E

1B 07-09-02

2-Deburr if necessary

SAD

07/09/22



3.0	QC2	INSPECT PARTS AS THEY COME OFF MACHINE
-----	-----	--



Comment: INSPECT PARTS AS THEY COME OFF MACHINE

1B 07-09-02

4.0	QC8	SECOND CHECK
-----	-----	--------------



Comment: SECOND CHECK

07/09/04 (46)

Dart Aerospace Ltd

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes ☒ No ☐ DQA: ☒ Date: 08/01/15
 QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Date: Friday, 8/31/2007 11:53:32 AM
User: Kim Johnston

Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: DOUBLER

Job Number: 34376

Part Number: D314098

Job Number:



Seq. #:

Machine Or Operation:

Description :

5.0

SMALL FAB 1

SMALL & MEDIUM FAB RESOURCE 1



Comment: SMALL & MEDIUM FAB RESOURCE 1

1-Form as per Dwg D3140

2-Scuff surfaces with 80grit sandpaper per QSI 006

3-Deburr.

No sharp edges

SB 08/01/03 (6)

SAD 08/01/03 (6)

SAD 08/01/03 (6)

6.0

QC5

INSPECT WORK TO CURRENT STEP



Comment: INSPECT WORK TO CURRENT STEP

S 08/01/04 (6)

7.0

HAND FINISHING1

HAND FINISHING RESOURCE #1



Comment: HAND FINISHING RESOURCE #1

Chemical Conversion Coat as per QSI 005 4.1

BF 08-01-12 (6)

8.0

QC3

INSPECT POWDER COAT/CHEMICAL CONVERSION



Comment: INSPECT POWDER COAT/CHEMICAL CONVERSION

MJ 08/01/12 (6x)

9.0

PACKAGING 1

PACKAGING RESOURCE #1



Comment: PACKAGING RESOURCE #1

Identify and Stock

Location: 142

8/1/14 500 (6x)

10.0

QC21

FINAL INSPECTION/W/O RELEASE



Comment: FINAL INSPECTION/W/O RELEASE

D 08/01/15 (6)

Job Completion



U 08-01-15

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries



DESIGN #	DRAWN BY CB	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
CHECKED JH	APPROVED #	DRAWING NO. D3140	REV. F SHEET 1 OF 7
DATE 06.10.06		TITLE DOOR SCALE NTS	
A	02.04.18	NEW ISSUE	
B	03.01.23	REMOVE -65/-81/-83; ADD -301/-303	
C	04.11.08	CHANGE DELASTEK SPEC. TEC-77; ADD PART MARKING; ADD NOTES 11, 12, 13; CHANGE ANGLE -95/-97/-98 TO 106°	
D	05.11.23	ADD -103/-104/-105/-106; REMOVE -67	
E	06.06.09	1.75 WAS 1.88, 4.75 WAS 4.13 ON -08/-07, 1.00 WAS 1.20 ON -09/-10	
F	06.10.06	ADD NOTE 14; CORRECT PART TITLE, NOW D3140-09/-92/-104 SHOWN D3140-10/-91/-103 OPPOSITE	

RELEASED

06.11.13

QTY -05	QTY -06	QTY -07	QTY -08	QTY -09	QTY -10	PART NUMBER	DESCRIPTION
X						D3140-05	DOOR
	X					D3140-06	DOOR
		X				D3140-07	DOOR
			X			D3140-08	DOOR
		1		X		D3140-09	DOUBLER ASSEMBLY
			1		X	D3140-10	DOUBLER ASSEMBLY
3	3					D3140-57	PAD
1	1					D3140-59	PAD
2	2					D3140-61	PAD
2	2					D3140-63	PAD
		1	1			D3140-69	PAD
		1	1			D3140-71	PAD
		1	1			D3140-73	PAD
		1	1			D3140-75	PAD
		1	1			D3140-77	PAD
		1	1			D3140-79	PAD
				1	1	D3140-85	ANGLE
1	1					D3140-87	DOUBLER
				1	1	D3140-89	DOUBLER
		1				D3140-91	DOUBLER
			1			D3140-92	DOUBLER
3	3					D3140-95	DOUBLER
1						D3140-97	DOUBLER
	1					D3140-98	DOUBLER
		1	1			D3140-99	DOUBLER
		2	2			D3140-101	DOUBLER
		1				D3140-103	DOUBLER
			1			D3140-104	DOUBLER
		1				D3140-105	DOUBLER
			1			D3140-106	DOUBLER
1	1					D3140-241	DOUBLER
1		1				D3140-301	DOUBLER
	1		1			D3140-303	DOUBLER
				5	5	MS20426AD3-4	RIVET

SHOP COPY
RETURN TO
ENGINEERING
UNCONTROLLED COPY
SUBJECT TO AMENDMENT
WITHOUT NOTICE
WORK ORDER
NO. 34376



Copyright © 2002 by DART AEROSPACE LTD

THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.



DESIGN #	DRAWN BY CB	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
CHECKED JH	APPROVED #	DRAWING NO. D3140	REV. F SHEET 2 OF 7
DATE 06.10.06		TITLE DOOR	SCALE NTS

1

COMPOSITE LAYUP & BONDING I.A.W. DELASTEK PROCESS SPEC. TEC-77
MATERIAL STORAGE & HANDLING TO BE I.A.W. DART QSI 006
MAIN LAYUP USES FIBERCOTE E-761/7781 EPOXY FIBERGLASS.
FILL WITH EPOCAST 87269 OR MAGNOBOND 77 A & B AND MA560 FOAM/ NB-51/30 FOAM

2

FINISH: DUPONT HIGHBUILD GREY PRIMER 1144-S

3

MAKE PARTS IN ACCORDANCE WITH THE FOLLOWING TOOLS/MOLDS:

PART	TOOL
D3140-05	B30-23000-01T
D3140-06	B30-23000-02T
D3140-07	B30-23000-03T
D3140-08	B30-23000-04T
D3140-57	B30-23000-57T
D3140-61	B30-23000-61T
D3140-63	B30-23000-63T
D3140-69	B30-23000-69T
D3140-71	B30-23000-71T
D3140-73	B30-23000-73T
D3140-75	B30-23000-75T
D3140-77	B30-23000-77T
D3140-79	B30-23000-79T
D3140-89	D3140-89T1
D3140-301	D3140-301T1
D3140-303	D3140-303T1

RELEASED
06.11.13 #

4

MATERIAL: 2024-T3 (QQ-A-250/4) 0.032 THICK (M2024T3S.032)
FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1

5

MATERIAL: 2024-T3 (QQ-A-250/4) 0.020 THICK (M2024T3S.020)
FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1

6

MATERIAL: 5052-H32/H34 (QQ-A-250/8) 0.040 THICK (M5052H32S.040)
FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1

7

MATERIAL: POLIMEX TR75 1" THICK 4.5 LB KLEGECELL

8

ALL DIMENSIONS IN INCHES

9

TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED

10

MATERIAL: 6061-T6 (QQ-A-250/11) 0.063 THICK (M6061-T6S.063)
FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1

11

DOUBLER TO SIT ON TOP OF FOAM AT THIS LOCATION

12

DOUBLER TO BE RECESSED FLUSH INTO FOAM AT THIS LOCATION

13

RUBBER STAMP WITH DART P/N D3140-05/-06/-07/-08 USING MIL-STD-130

14

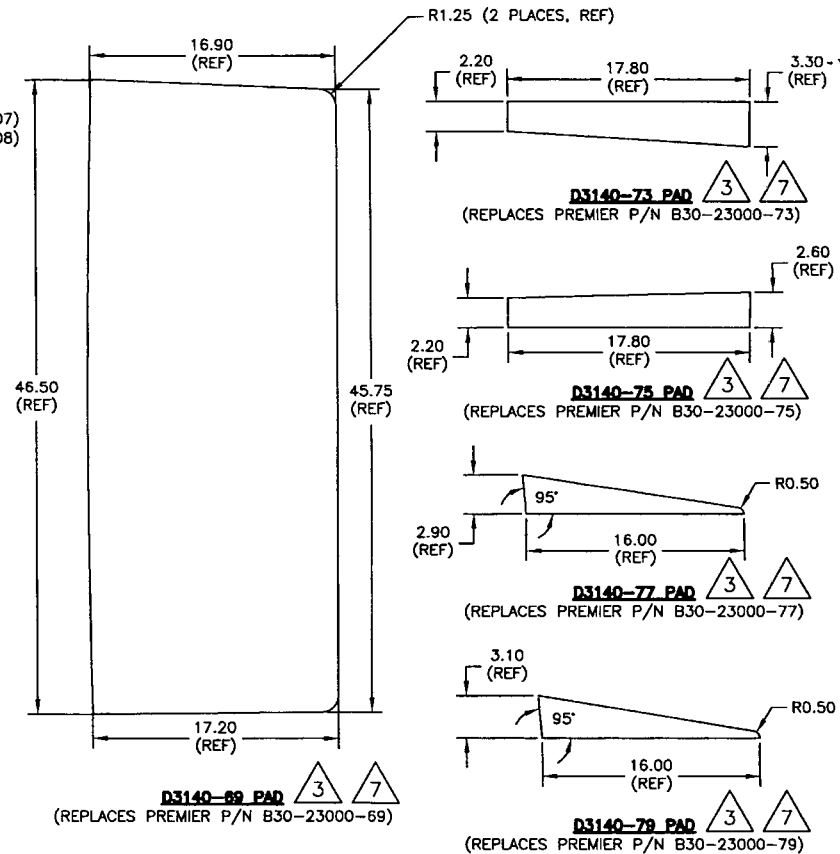
PARTS MUST BE SCUFFED WITH 80 GRIT SANDPAPER PRIOR TO ACID ETCH AND
ALODINE PER DART QSI 005 4.1

SHOP COPY
RETURN TO
ENGINEERING
UNCONTROLLED COPY
SUBJECT TO AMENDMENT
WITHOUT NOTICE
WORK ORDER
NO. 34376

F

Copyright © 2002 by DART AEROSPACE LTD

THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.



RELEASED

06.11.13



- D3140-103 (SHOWN)
D3140-104/-105/-106 (SIMILAR)
DOUBLER EDGE

COPYRIGHT © 2002 BY DMT AEROSPACE LTD.

THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL
AND IS SUPPLIED ON THE EXPRESS CONDITION
THAT IT IS NOT TO BE USED FOR ANY PURPOSE
OR COPIED OR COMMUNICATED TO ANY OTHER
PERSON WITHOUT WRITTEN PERMISSION FROM
DART AEROSPACE LTD.

DESIGN

DRAWN BY

DART

DART AEROSPACE LTD.
MISSISSAUGA, ONTARIO, CANADA

CHECKE

APPROVED

DRAWING NO.

REV. R.

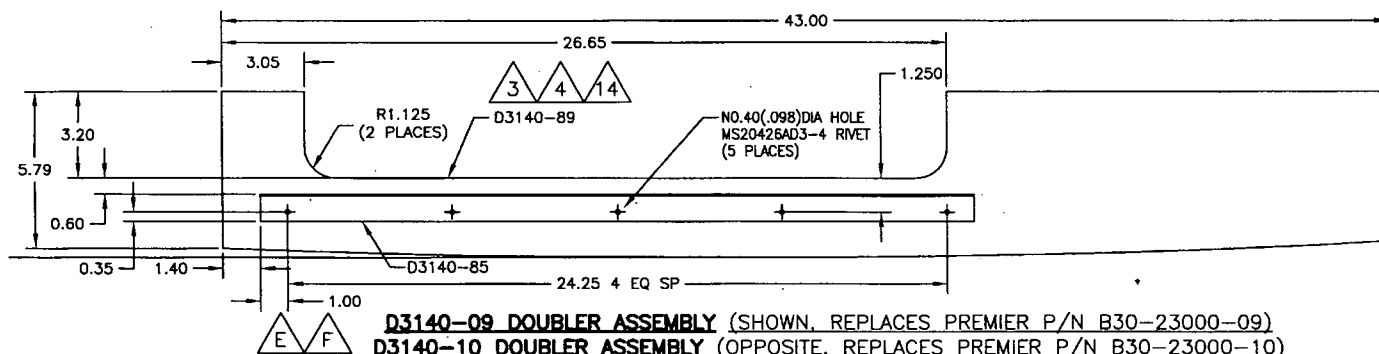
DATE
06.10.06

TITLE
DOOR

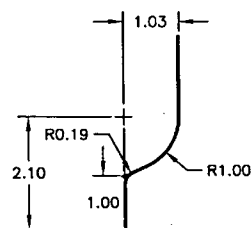
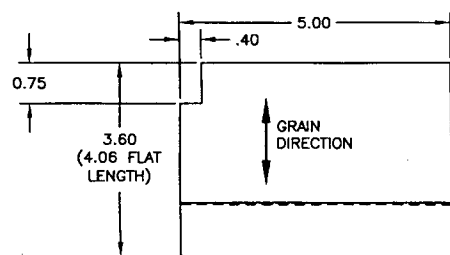
SHEET 4 OF 7

SCALE

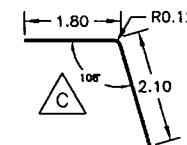
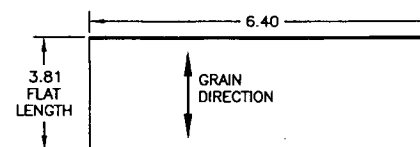
NTF



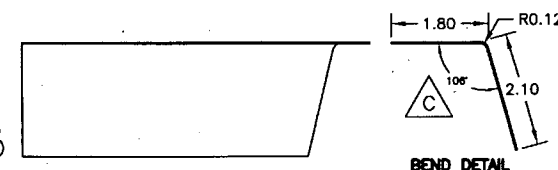
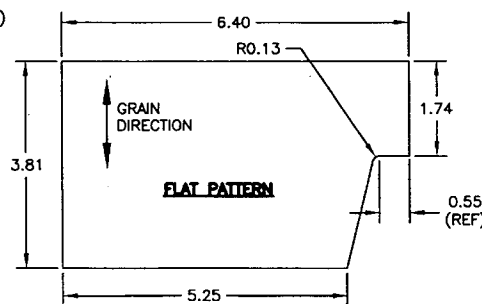
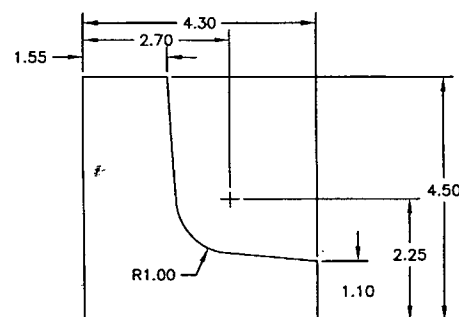
D3140-101 DOUBLER (REPLACES PREMIER P/N B30-23000-101)



D3140-91 DOUBLER (OPPOSITE, REPLACES PREMIER P/N B30-23000-91)



D3140-95 DOUBLER (REPLACES PREMIER P/N B30-23000-95)



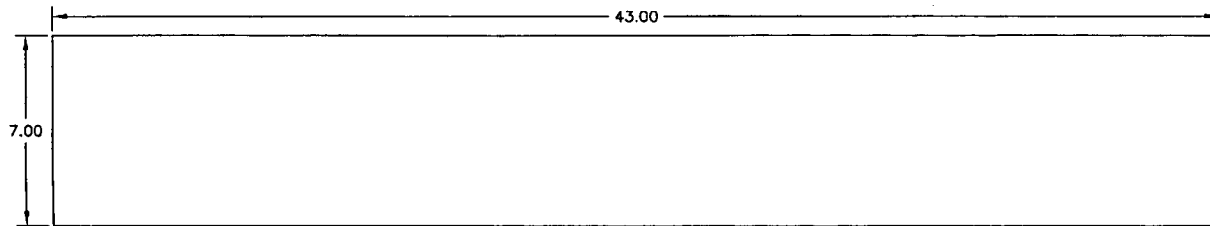
D3140-97 DOUBLER (SHOWN, REPLACES PREMIER P/N B30-23000-97)
D3140-98 DOUBLER (OPPOSITE, REPLACES PREMIER P/N B30-23000-98)



COPYRIGHT © 2002 BY DART AEROSPACE LTD.

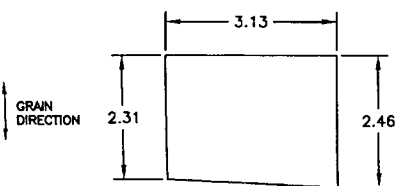
THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.

DESIGN #	DRAWN BY CB	DART	DART AEROSPACE LTD. WARRICKSLEY, ONTARIO, CANADA
CHECKED JLH	APPROVED JLH	DRAWING NO. D3140	REV. F SHEET 5 OF 7
DATE 06.10.06	TITLE DOOR	SCALE NTS	

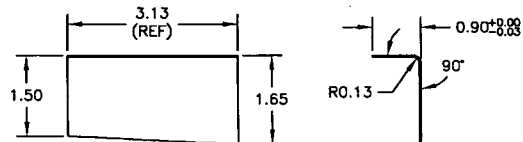
SHOP COPY
RETURN TO
ENGINEERING
UNCONTROLLED COPY
SUBJECT TO AMENDMENT
WITHOUT NOTICE
NO. 343710
WORK ORDER






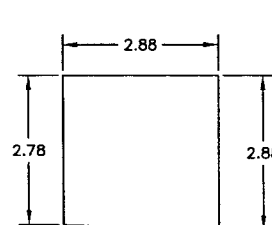
D3140-87 DOUBLER  
(REPLACES PREMIER P/N B30-23000-87)



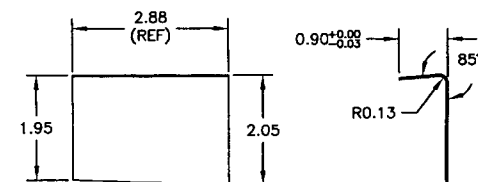
D3140-105F FLAT PATTERN
(USED TO MAKE D3140-105/-106 BRACKETS)







D3140-105 DOUBLER   
D3140-106 OPPOSITE

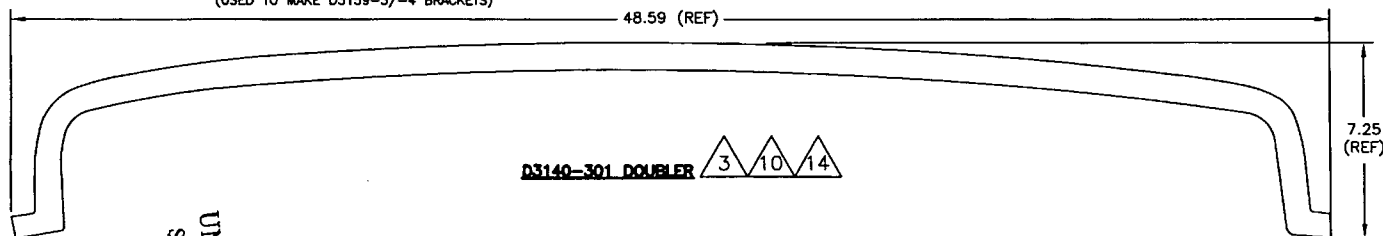


D3140-103F FLAT PATTERN
(USED TO MAKE D3140-103/-104 BRACKETS)

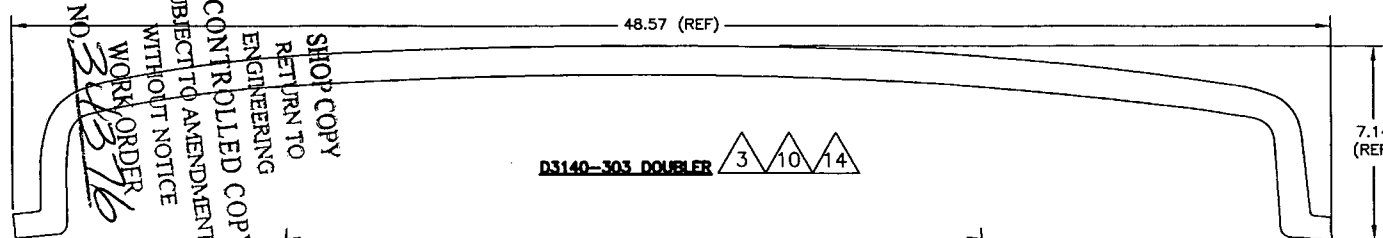


D3140-104 DOUBLER    
D3140-103 OPPOSITE

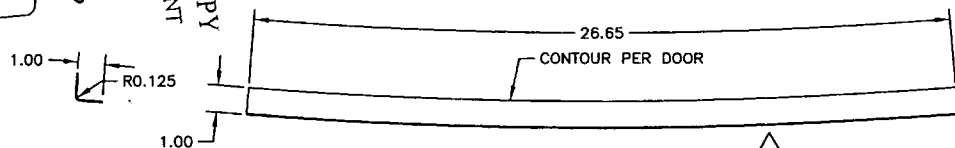
D3159-3F FLAT PATTERN
(USED TO MAKE D3159-3/-4 BRACKETS)




D3140-301 DOUBLER   



D3140-303 DOUBLER   



D3140-85 ANGLE 
FLAT PATTERN: 26.65" x 1.90"
(REPLACES PREMIER P/N B30-23000-85)

RELEASED

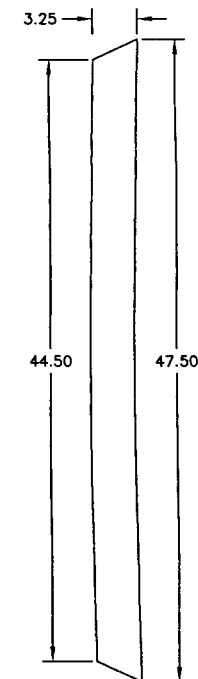
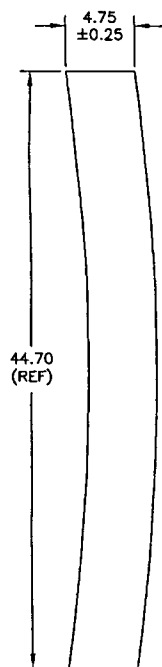
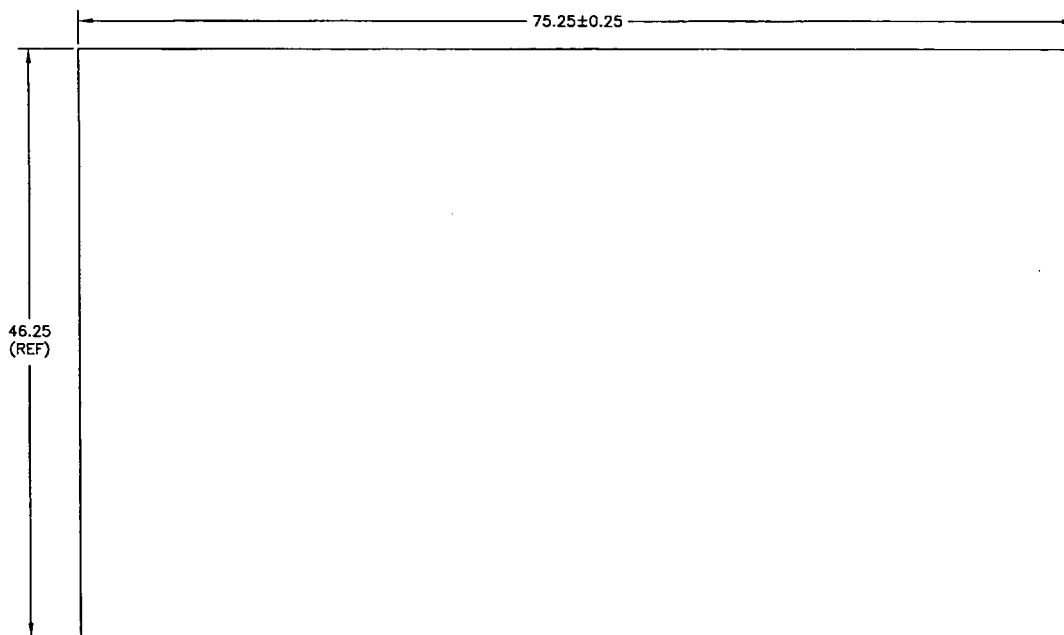
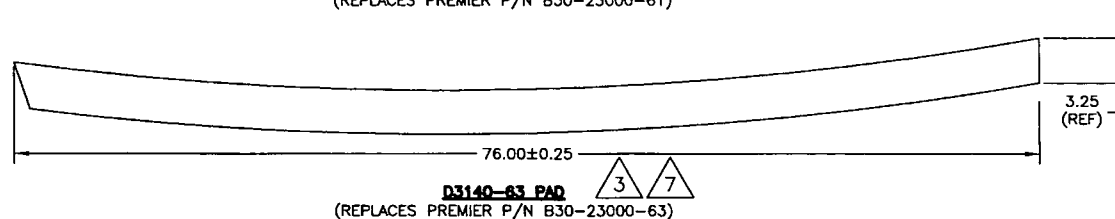
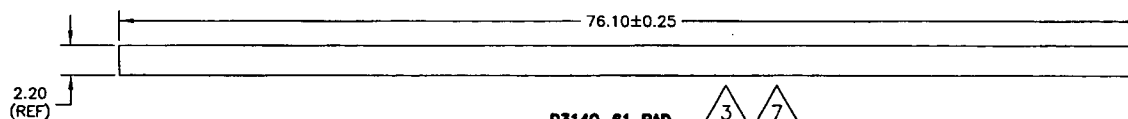
06.11.13

NO 314376
WORK ORDER
WITHOUT NOTICE
UNCONTROLLED COPY
ENGINEERING
RETURN TO
SHOP COPY

COPYRIGHT © 2002 BY DART AEROSPACE LTD.

THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL
AND IS SUPPLIED ON THE EXPRESS CONDITION
THAT IT IS NOT TO BE USED FOR ANY PURPOSE
OR COPIED OR COMMUNICATED TO ANY OTHER
PERSON WITHOUT WRITTEN PERMISSION FROM
DART AEROSPACE LTD.

DESIGN 4	DRAWN BY CB	DART DART AEROSPACE LTD. WARRICKSLEY, ONTARIO, CANADA	REV. F
CHECKED <i>[Signature]</i>	APPROVED <i>[Signature]</i>	DRAWING NO. D3140	SHEET 6 OF 7
DATE 06.10.06		TITLE DOOR	SCALE NTS



D3140-241 DOUBLER 5 14
(REPLACES PREMIER P/N B30-23000-241)

RELEASED

06.11.13

R1.00
(2 PLACES, REF)

D3140-57 PAD
(REPLACES PREMIER P/N B30-23000-57)

3 7

SHOP COPY
RETURN TO
ENGINEERING
UNCONTROLLED COPY
SUBJECT TO AMENDMENT
WITHOUT NOTICE
WORK ORDER
NO. 34370

COPYRIGHT © 2002 BY DART AEROSPACE LTD.

THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.

DESIGN 4	DRAWN BY CB	DART DART AEROSPACE LTD. HAMPSHIRE, ONTARIO, CANADA	REV. F
CHECKED <i>[Signature]</i>	APPROVED	DRAWING NO. D3140	SHEET 7 OF 7
DATE 06.10.06	TITLE DOOR	SCALE NTS	

H:\FORMS\10

Rev
A

Me